

# NEWS LETTER

*Society of American Bacteriologists*

FILE COPY

OFFICE OF THE  
SECRETARY-TREASURER

STERLING-WINTHROP RESEARCH INSTITUTE  
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K. B. Raper (1955) J. E. Blair (1956) Richard Donovanick (1957)

## Invited Members (Nonvoting):

R. Porter, Editor-in-Chief, THE JOURNAL OF BACTERIOLOGY; P. W. Wilson, Editor-in-Chief, BACTERIOLOGICAL REVIEWS; H. B. Woodruff, Editor-in-Chief, APPLIED MICROBIOLOGY; Orville Wyss, Chairman of the Program Committee; B. W. Catlin, Chairman of the Division of General Bacteriology; Stanley Marcus, Chairman of the Division of Medical Bacteriology, Immunology and Comparative Pathology; James Roberts, Chairman of the Division of Agricultural and Industrial Bacteriology; J. J. R. Campbell, Chairman of the Division of Physiology.

Plan now to attend  
The 56th Annual Meeting of  
**THE SOCIETY OF AMERICAN BACTERIOLOGISTS**  
Shamrock Hotel, Houston, Texas  
April 29–May 3, 1956

**THE HOUSTON MEETING**  
April 29–May 3, 1956

Plans of the Texas Branch for the 56th General Meeting of the Society of American Bacteriologists are now in the final stages. We hope everyone is planning to be with us in Houston April 29 through May 3, 1956.

The headquarters for the meeting will be the fabulous Shamrock, one of the finest of the Hilton hotels, with large, convenient, and comfortable session rooms, delightful lawns and promenades for visiting, and with more than ample space for exhibits. A spacious terrace adjoins the swimming pool of the hotel and will be available for your enjoyment in the pleasant springtime climate of Houston. The Shamrock-Hilton is located adjacent to the Texas Medical Center, one of the nation's largest concentrations of hospitals; it is in the Rice Institute area of the city, and is just a fifteen minutes drive from the center of downtown Houston. There are all types of shops and restaurants in the area and those traveling by car will find some of the city's finest motels in the vicinity. (Further details on reservations and accommodations will be given in the January News Letter.)

Houston is one of the scientific centers of the Southwest, and has many things of scientific interest not found anywhere else. It is a center of the oil and chemical industries, and oil fortunes have been used to endow universities, medical centers, and scientific laboratories of all types. Many of the major oil companies have their research and development laboratories here, and people from all over the world visit Houston to use these facilities. Houston has the distinction of being one of the largest and busiest ports in the nation although it is located fifty miles from the sea. A ship channel makes this possible.

As an added taste of the southwest, we are planning to arrange a Texas-style President's reception, banquet and dance. It will be strictly informal, so plan to bring your best gal, your coon hound, and your dancing shoes! On Wednesday evening, May 2, 1956, at the Rocking R Ranch there will be food and entertainment for everyone. We are planning a rodeo, square dancing and general

dancing, free lemonade, beer and soda water, favors, and all the food you can possibly eat! Transportation will be included, all for a price much lower than has been charged in the past for the formal hotel banquet. Reservations will be limited to about 800, so get yours in early to Dr. S. W. Bohls, 803 East 32nd Street, Austin, Texas or to Dr. Kenneth L. Burdon, Department of Microbiology, Baylor University College of Medicine, Houston 25, Texas.

**Scientific Exhibits at Houston**

The August 1955 number of the News Letter carried an invitation to members of the Society to submit scientific (non-commercial) exhibits for the 1956 meeting of the Society in Houston. The program committee has arranged to have brief descriptions (up to 250 words) of the scientific exhibits appear in the 1956 Bacteriological Proceedings.

Descriptions of the scientific exhibits are to be sent to the chairman of the Program Committee, Dr. Orville Wyss, University of Texas, Austin, Texas. To be included in Bacteriological Proceedings, the descriptions must be received by February 2, 1956, the same date for receiving abstracts of papers to be presented.

Dr. W. A. Nolte, University of Texas Dental Branch, Houston 25, Texas, has taken over the chairmanship of the Exhibits Committee and is in charge of the scientific exhibits. Correspondence concerning the scientific exhibits should be addressed to Dr. Nolte.

**Symposia at the Houston Meeting**

The Program Committee has arranged for four symposia to be held at the Houston meeting of the Society. Dr. J. B. Davis of the Magnolia Petroleum Co. will convene a symposium on petroleum microbiology. The division of Agricultural and Industrial Bacteriology will have a symposium on Microbiological Problems in the Fermentation Industry arranged by Dr. J. L. Roberts of Camp Detrick and E. C. Saudek of The Upjohn Co.

The Division of General Bacteriology is holding a symposium on Problems of Teaching Microbiology. Dr. Arthur Colmer, Louisiana State

University is the convener. The Enterobacteriaceae is the subject of the symposium arranged by the Division of Medical Bacteriology, Immunology and Comparative Pathology.

#### Round Tables

The system for holding informal round table discussions inaugurated at the Pittsburgh meeting and continued at New York will again be in operation. Any member who would like to confer informally with bacteriologists working on some phase of microbiology which is of interest to a relatively small group should contact Dr. Paul Donaldson of the Southwestern Medical School of the University of Texas, Dallas, Texas. Dr. Donaldson will be glad to arrange such a round table.

#### Papers for the Houston Meeting

Abstract blanks for papers to be presented at the Houston meeting were mailed with this issue of the News Letter. Please note that on the back of these blanks is space for indicating the division before which the author believes the paper should be presented. By supplying this information the author will assist the Program Committee in the allocation of papers among the divisions of the Society to the greater satisfaction of all.

Abstracts of papers to be presented must reach the Chairman of the Program Committee, Dr. Orville Wyss, University of Texas, Austin, Texas by February 2, 1956.

#### THE FEDERATION'S REGISTER OF SCIENTIFIC PERSONNEL

The Act of Congress which established the National Science Foundation, authorized and directed N.S.F., in addition to its other functions, "to maintain a register of scientific and technical personnel and in other ways provide a central clearinghouse for information covering all scientific and technical personnel in the United States, including its Territories and possessions." The register was intended primarily to serve as a mechanism for quickly identifying and locating persons with special skills, in the event that in an emergency such machinery becomes necessary to the national security. A second objective was to assemble and develop statistical information relating to the national supply, training, and utilization of scientific and technical personnel. A third purpose was to assemble comparable statistical information regarding the demand for scientific and technical personnel. The final goal was to provide an information center through which information regarding scientific manpower resources could be made available to qualified agencies or societies.

In order to conduct this register through normal

scientific channels, the N.S.F. enlisted the cooperation and services of several scientific and technical organizations, which, together cover the whole area contemplated for the National Register. These organizations are: The American Chemical Society for Chemistry; The American Institute of Physics for Physics; the Federation of American Societies of Experimental Biology and The American Institute of Biological Science for Biology; The American Psychological Association for Psychology; The American Mathematic Association for Mathematics; the American Meteorological Society for Meteorology; The U. S. Public Health Service for Sanitation Engineers.

Unlike World War II Roster and other Scientific registers where qualifications were set by a small central group, this register permits each participating organization to determine the qualifications of individuals for inclusion in the register. This does have the desirable feature of permitting each organization, representing an area of science or technology, to select those individuals it considers are constituting the essential personnel of its field.

The initial effort in this joint undertaking was in the distribution and collecting of a questionnaire, which most of the members of S.A.B. have received within the past two years. Information gathered has been codified and transferred to IBM cards and combined in a central file. This file currently is being used by both the NSF and participating societies. Experience with this Register has been reviewed recently by the Foundation with the societies. It had been apparent from many of the scientists completing the questionnaire, that there were certain deficiencies in this first effort. For instance, many of you had received duplicate questionnaires from several collecting organizations. Serious doubts as to the value of the whole project were expressed by some. Many individuals found it difficult or impossible to classify themselves or their work within the limitations imposed by the format of the questionnaire.

Obviously, the type of information being sought in this program, is of value, only to the extent that it reflects the current scientific manpower situation. For this reason and in order to correct some of the past deficiencies, the questionnaire has been revised, and will make it possible to identify an individual scientist's specialty in a more definitive manner. We expect to avoid the nuisance value of duplication, by checking through a central office. This revised questionnaire will be mailed in 1956 and at two year intervals thereafter. It is urgently requested that every member complete and return the questionnaire promptly. We shall be most appreciative of your help and cooperation—also your comments in regard to the adequacy of the new form.

## SUMMER RESEARCH AWARDS IN THE BIOLOGICAL SCIENCES

The Lalor Foundation announces details of the 1956 series of summer awards which it is granting for research in the biological sciences. These awards are to be 40 in number (an increase of 30% over 1955) and they are designed to go to younger members of college and university faculties (with age limit of 40 years).

These awards are for advanced study and research employing chemistry or physics to attack problems in any field of biology. The studies may be carried on at any institution of the award holder's choice. The awards will usually not exceed \$900 for a single man or woman, \$1,100 for a married person working at his home institution, and \$1,200 for a married person whose principal program is at another institution. Transportation and other expenses are for the account of the award holder.

Younger faculty members with important teaching obligations find in many cases that the summer months between the academic years are the only uninterrupted periods available to them for carrying on fundamental research of their own choosing. The Lalor Faculty Summer Research Awards are designed to assist these men and women in carrying on such programs and thereby to add to their prestige as scientists and effectiveness as teachers.

For the last several years the Foundation has been maintaining a number of post-doctorate summer fellowships at the Marine Biological Laboratory at Woods Hole, Mass. These Lalor fellowships for M.B.L. are being consolidated into the enlarged program now announced, and it is suggested that men and women interested in work at M.B.L., and eligible under the faculty summer award plan, should consider submitting applications under that newer plan.

Inquiries respecting Lalor Faculty Summer Research Awards should be addressed to the Director of the Lalor Foundation, 4400 Lancaster Pike, Wilmington 5, Delaware. Final date for receipt of completed applications is January 14, 1956, and notification regarding appointment may be expected by March 15, 1956.

## N.S.F. RESEARCH PROPOSALS

The Division of Biological and Medical Sciences of the National Science Foundation announces that the next closing date for receipt of research proposals in the life sciences will be February 1, 1956. Proposals received prior to that date will be reviewed during the Spring meetings of the advisory panels and final disposition will be made approximately ten weeks from the dates of those meetings. Proposals received after February 1, 1956 cannot be reviewed until Fall, 1956.

## ELI LILLY AWARD

Nominations for the Eli Lilly and Company Research Award for 1956 are invited. The award is made annually to a young microbiologist who has performed outstanding research in bacteriology or its related fields. To be eligible the nominee shall be less than 35 years of age on April 30, 1956 (birth date later than April 30, 1921).

The Eli Lilly and Company Research Award is administered by an Award Committee composed of two members from the Society of American Bacteriologists and one each from the American Association of Immunologists and the American Society for Experimental Pathology. The Award Committee acts upon nominations made to it by the Eli Lilly and Company Research Award Nominating Committee.

The Nominating Committee, consisting of members of the Society of American Bacteriologists, the American Association of Immunologists and the American Society for Experimental Pathology in a 2:1:1 ratio, receives and reviews the nominations made to it, but may not make nominations. All nominations made to it and found eligible will be forwarded to the Award Committee which examines all eligible nominations and selects one for the award.

Nominations for the 1956 award should be addressed to Dr. S. E. Luria, Chairman, Nominating Committee, and sent to John Hays Bailey, Secretary-Treasurer, Society of American Bacteriologists, Sterling-Winthrop Research Institute, Rensselaer, N. Y., to reach that office not later than February 10, 1956.

Four copies of all material should be submitted and must include the following:

1. Month, day and year of birth.
2. Curriculum.
3. List of publications.
4. Specific reference to the research upon which the nomination is based.
5. Supporting letters, if possible.

No reprints or manuscripts should be submitted.

For the purpose of this award, outstanding research is understood to be that which is of unusual merit in the younger age group. The research is not to be judged in comparison with the work of more mature and experienced workers, and judging the various researchers, special consideration shall be given to the independence of thought and originality shown. The nominee need not be a member of the S.A.B., nor does the nominator.

The Award consists of \$1000 and a bronze medal. The recipient of the Award presents the Eli Lilly and Company Award Address at the joint meeting of all the Divisions of the Society of American Bacteriologists at its annual meeting.

# VISUAL INSTRUCTION IN MICROBIOLOGY

The Committee on Materials for Visual Instruction in Microbiology has reviewed some forty-odd motion picture films and prepared abstracts on them. Abstracts of these films are available at three cents each.

The Committee has also added some forty lantern slides to its collection. These are available for purchase or rental in either the 2 x 2 inch or 3 1/4 x 4 inch size. Black and white photographic enlargements 5 x 7 or 8 x 10 inches, of these slides may be purchased. Mimeographed legends accompany each slide or print. Enquiries regarding abstracts' slides or prints should be addressed to the chairman of the committee, Dr. Harry Morton, University of Pennsylvania School of Medicine, Department of Microbiology, Philadelphia 4, Pa.

The following is a list of the new lantern slides and abstracts of motion pictures:

	Number and Title of Slide
LS-283	Electron shadowed micrographs of bacteriophage active against <i>Streptococcus lactis</i> .
LS-284, 285	Electron micrographs of nuclear sites in <i>Escherichia coli</i> .
LS-286-289	Electron shadowed micrographs and photomicrographs suggesting that the granules in <i>Mycobacteria</i> are mitochondria.
LS-290	Electron shadowed micrographs of normal and heated <i>E. coli</i> .
LS-291	Electron micrograph of <i>Micrococcus cryophilus</i> , spec. nov.
LS-292	Photomicrograph of intracytoplasmic Donovan bodies stained by pinacyanole technic.
LS-293	Electron shadowed micrograph of dengue fever virus.
LS-294	Electron shadowed micrographs of Group A coxsackie virus.
LS-295-297	Photographs of bacterial antagonism among members of the ocular flora.
LS-298	Photographs of 3 colony forms of <i>Leuconostoc mesenteroides</i> isolated from sugar cane juice.
LS-299, 300	Electron shadowed micrographs of helical fine structure of flagella of a motile diphtheroid.
LS-301-303	Electron micrographs and photomicrographs of <i>Mycobacterium tuberculosis</i> and <i>Mycobacterium thamnophae</i> with reference to mitochondria and nuclei
LS-304, 305	Photomicrographs of cell wall, mitochondria, and nuclei in <i>Salmonella typhosa</i> .
LS-306	Photomicrographs showing the effect of terramycin on <i>E. coli in vitro</i> .

	Number and Title of Slide
LS-307	Photograph of structural formulae for aureomycin and terramycin.
LS-308	Photomicrograph of crystals of terramycin hydrochloride.
LS-309	Photomicrographs of colonies of pleuropneumonia-like organisms from dogs and cattle.
LS-310	Photomicrographs of colonies of pleuropneumonia-like organisms from man grown in the absence and in the presence of tetrazolium salts.
LS-311-313	Electronmicrographs of morphological forms of bovine pleuropneumonia organism.
LS-314	Photographs of <i>Actinomyces griseus</i> and of <i>A. griseus</i> in the presence of actinophage.
LS-315	Photograph of schematic drawing of the lines of cellular defense in acute bacterial pneumonia.
LS-316	Photomicrographs and schematic diagram of a pneumonic lesion.
LS-317	Electron shadowed micrographs of poliomyelitis virus, Brunhilde and Leon strains.
LS-318	Electron shadowed micrograph of poliomyelitis virus, Mahoney tissue culture strain (type I).
LS-319	Electron shadowed micrograph of poliomyelitis virus, type II (MEF 1) from monkey tissue culture.
LS-320-324	Photographs of morphological and colonial variation of <i>Diplococcus pneumoniae</i> .
LS-325	Electron shadowed micrograph of ultra thin section of <i>Bacillus cereus</i> .
LS-326	Electron shadowed micrograph of the Novy rat virus.
LS-327	Photomicrographs of <i>Treponema pallidum</i> in darkfield preparations.
LS-328	Photograph of schematic diagram of the pathogenesis of poliomyelitis.
	Abstract No. and Title of Film
180	Aureomycin. The versatile antibiotic. Co, So. 800' (1950)
181*	Bacterial swarms. B&W, Si. 350' (1948)
182	Urinary infections. Bacteriology, pathology, and treatment. Co, So. 1500' (1950)
183	Clinical use of hyaluronidase. Co, So. 1200' (1950)
184	Modern technics for initiating blood cultures. Co, So. 475' (1951)
185	Bread making. Co, or B&W, So. 400' (1951)
186*	Motility and flagella. B&W, Si. 350' (1950)
187	Miracle from old. The story of terramycin. B&W, Si. 350' (?)

Abstract No. and Title of Film			
188	Modern technics of collecting blood samples. Co, So.	1100'	(1951)
189	Hypodermic syringes and needles. Their care and function. Co, So.	1800'	(1949)
190*	Infectious hazards of bacteriological technics. I. The inoculating needle, B&W, So.	350'	(1950)
191*	Infectious hazards of bacteriological technics. Co, So.	425'	(1950)
192	The billion dollar malady (The common cold). B&W, So.	550'	(1951)
193	The story of Antony Van Leeuwenhoek. B&W, Si.	2000'	(1932)
194	Life cycle of a yeast cell. B&W, So.	600'	(1952)
195	This is Britain—Health. B&W, So.	400'	(?)
196	Venepuncture. Co, So.	500'	(1952)
197*	Halobacterium halobium. B&W, Si.	180'	(1952)
198	Introduction to biology. B&W, So.	500'	(1952)
199	Antibiotics. Co, So.	600'	(1952)
200*	Steam pressure sterilization. Co, So.	1100'	(1953)
201*	In vitro demonstration of surface phagocytosis. B&W, Si.	300'	(1952)
202*	Studies of cellular immunology of acute bacteremia. B&W, Si.	300'	(1952)
203*	The compound microscope. Co, So.	800'	(1953)
204	The antibiotics and terramycin. Co, So.	800'	(1953)
205	Plague control. Co, So.	800'	(1945)
206	Anthrax in Ohio. Co, So.	700'	(1952)
207	Cholera can be conquered. Co, So.	350'	(1946)
208	Studies in phagocytosis. Role of plasma opsonin. B&W, Si.	350'	(?)
209	Studies on phagocytosis. B&W, Si.	800'	(?)

Abstract No. and Title of Film			
210	The lymphatic system. Co, So.	1600'	(1950)
211	Born in the White House. Poliomyelitis. B&W, So.	1000'	(?)
212*	Classification of bacteria. B&W, Si.	100'	(1930)
213*	Bacterial motility. B&W, Si.	200'	(1930)
214*	Bacterial cell division. B&W, Si.	200'	(1930)
215	Vesicular diseases of animals. Co, So.	400'	(?)
216	The story of penicillin. B&W, So.	350'	(?)
217	Salmonella food poisoning. Co, So.	500'	(1954)
218	Continuity of life. Characteristics of plants and animals. Co, So.	400'	(1954)
219	Continuity of life. Asexual reproduction. Co, So.	400'	(1954)
220	Shrimp please. Co, So.	800'	(1954)
221	Working for better public health through recognition of feelings. B&W, So.	900'	(1953)
222	Syphilitic venereal disease. Co, So.	1000'	(1954)
223	To greater vision. B&W, So.	900'	(1944)
224	Ocular bacteriology. Its application to clinical practice. Co, So.	1500'	(1954)
225	The nose: Structure and function. Co, So.	400'	(1954)
226	The smallest foe. Co, So.	700'	(1954)
227	Infective larvae of <i>Ancylostoma caninum</i> . B&W, So.	150'	(?)
228	<i>Ancylostoma caninum</i> in the intestine of the dog. B&W, So.	150'	(?)
229	Technic of injection in animals. Co, Si.	550'	(?)
230	When you choose nursing. B&W, So.	700'	(1954)
231*	<i>Escherichia coli</i> . Morphological changes under the influence of antibiotics. B&W, So.	500'	(1954)

Co = color; Si = silent; B&W = black and white; So = sound.

\* Film distributed by the Committee.

( ) = date of production.

#### COMMITTEE APPOINTMENTS 1955-1956

The following appointments have been made to Society committees for 1955-1956:

##### Committee of Twenty

E. H. Spaulding  
J. T. Syverton

W. J. Cromartie  
L. O. Krampitz  
J. H. Bailey  
I. L. Baldwin  
M. W. Chase  
G. M. Dack  
S. R. Damon

- (1950) Richard Donovick  
Goeffrey Edsall  
P. R. Edwards  
(?) C. A. Evans  
R. D. Housewright  
(1930) P. W. Kabler  
E. M. Mrack  
(1930) R. G. E. Murray  
R. S. Starkey  
(1930) Orville Wyss  
H. Orin Halvorson  
(?) "Task Force." Sub Committee of Committee of  
Twenty  
(?) W. J. Cromartie  
Richard Donovick  
(1954) H. Orin Halvorson  
(1954) L. O. Krampitz  
J. H. Bailey  
*Interim Committee on Certification*  
(1954) E. H. Spaulding, Chairman  
W. J. Cromartie  
(1954) C. A. Evans  
(1953) R. D. Housewright  
L. O. Krampitz  
J. T. Syverton  
(1954) *Membership Committee*  
(1944) George Savage, Chairman  
(1954) C. Hunter  
Alfred Borg  
*Archives Committee*  
(1954) L. S. McClung, Archivist  
S. Baynes-Jones  
(1954) H. J. Conn  
(?) Paul Clark  
(?) *Program Committee*  
(?) O. Wyss, Chairman  
R. Housewright, Vice-Chairman  
(?) B. W. Catlin  
Stanley Marcus  
(1954) James Roberts  
J. J. R. Campbell  
(1954) *Publication Board*  
J. R. Porter, Chairman  
H. O. Halvorson  
J. H. Bailey  
P. W. Wilson  
H. B. Woodruff  
*Committee on Bacteriological Technique*  
M. W. Pelzcar, Chairman  
R. C. Bard  
E. E. Evans  
G. W. Burnett  
H. J. Conn  
H. C. Lichstein  
L. S. McClung  
A. P. McKee  
M. W. Jennison  
A. J. Riker  
J. Warren  
O. B. Weeks  
F. A. Weiss  
*Presidents Fellowship Award*  
R. L. Starkey, Chairman  
I. C. Gunsalus  
C. A. Evans  
*Committee on Materials for Visual Instruction in Microbiology*  
H. E. Morton, Chairman  
M. W. Jennison  
W. H. Ewing  
M. C. Dodd  
J. E. Kempf  
*Eli Lilly and Co. Award, Award Committee*  
W. McElroy, Chairman  
W. M. Hale (ASEP)  
P. D. McMaster (AAI)  
*Eli Lilly and Co. Award, Nominating Committee*  
S. E. Luria, Chairman  
A. H. Coons (A.A.I.)  
J. G. Kidd (A.S.E.P.)  
Alan W. Bernheimer  
*Representatives to ATCC*  
R. E. Buchanan  
C. Lamanna  
*Representative to International Association of Microbiologists*  
S. Mudd  
*National Research Council Representatives*  
P. W. Wilson (Agriculture)  
W. A. Hagan (Medicine)  
*Representatives to AAAS*  
W. Nungester  
R. E. Hungate  
*Placement Bureau Director*  
M. J. Foter  
*American Type Culture Collection; Technical Committee*  
Harriette D. Vera, Chairman  
R. E. Buchanan  
M. L. Littman  
J. L. Roberts  
Mathilde Solowey  
R. P. Tittsler  
*Representative to the Kimble Glass Co. Award Committee*  
W. W. Ferguson

*Committee on Sanitary Methods for Examination of Water*

P. W. Kabler, Chairman  
Erling Ordal  
C. Croft

*Committee on Investments—Jan. 1955*

J. H. Bailey  
E. G. Klarmann  
T. J. Karski

*Taxonomic Problems*

K. B. Raper, Chairman  
David Gottlieb  
C. J. Niven, Jr.  
R. G. Benedict  
R. L. Starkey

**o-NITROPHENYL GALACTOSIDE ("ONPG")**

A number of correspondents have requested information on or samples of o-nitrophenyl galactoside for use in the assay of B-D-galactosidase (lactase) following the procedure described previously (Lederberg, 1950, *J. Bact.*, 60: 381-392). Until now, this material has not been commercially available. It can be obtained, in satisfactory purity, from the following source, to whom application should be made for price and delivery schedules: Quimotecnica Chilena Ltda., Box 2182, Madison 5, Wis.

J. LEDERBERG  
University of Wisconsin

**NEWS OF OUR MEMBERS**

Joseph R. Merkel, formerly at the Institute of Microbiology, Rutgers University, has been appointed Director of the Fort Johnson Marine Biological Laboratory of the College of Charleston, S. C. The former quarantine station for the port of Charleston has been acquired by the College of Charleston and is being converted into laboratory and living accommodations. A limited research and teaching program will begin this fall. When conversion has been completed considerable space will be available for research and teaching. The major emphasis of the Fort Johnson Marine Biological Laboratory will be on microbiology, but not to the exclusion of other fields of marine biology.

Dr. A. G. Lockhead, chief of the Bacteriology Division, Science Service, Department of Agriculture, Ottawa, Canada since 1923, retired in June of this year. He served as President of the Canadian Society of Microbiologists in 1954.

Dr. Lockhead has in the past, served on the Council and various committees of the S.A.B. He became a Fellow of the Royal Society of Canada in 1940 and was President of the Canadian Society of Microbiologists last year.

Dr. Harry Katznelson, Head of the General Agricultural Microbiology Unit, has succeeded

Dr. A. G. Lockhead as Chief, Bacteriology Unit, Science Service, Department of Agriculture, Ottawa, Canada. A graduate of the University of British Columbia in 1934, Dr. Katznelson received his M.S. from State College of Washington, Pullman, Washington in 1937 and the Ph.D. degree from Rutgers in 1939. He did a years' post doctorate work at Cornell in 1940 and in 1951 spent a year working in bacterial metabolism at Stanford University.

Dr. W. H. Stark was elected a director of the Standard Ultramarine and Color Co. of Huntington, W. Va. at a special meeting of the stockholders on July 25, 1955. Dr. Stark was then elected Executive Vice President and General Manager of the company by the Board of Directors of the company.

**NEW BOOKS**

**The Chemistry and Fertility of Sea Waters.** H. W. Harvey. New York: Cambridge University Press; 1955. VIII + 224 pp. \$5.50.

**Pilot Plant Techniques of Submerged Fermentation.** Special English Edition of Rendiconti Istituto Superiore di Sanita, Vol. 17. New York: Interscience Publishers, Inc.; 1954. x + 253 pp. \$8.10.

**Listeriose.** Heinz Seeliger. Leipzig: Joham Ambrosius Barth; 1955 (U. S. Agent Steckert-Hafner, N. Y.) 152 pp. D. M. 11.60.

**REVIEWS**

**The Tubercle Bacillus in the Pulmonary Lesions of Man.** Georges Canetti. New York: Springer Publishing Company, Inc., 1955. 226 pp. \$8.50.

This book is divided into five parts. Chapter one gives a brief review of the histology and histogenesis of the various pulmonary lesions of tuberculosis. Chapter two is concerned with the author's attempts to enumerate by direct microscopic count the numbers of tubercle bacilli seen in various types of pulmonary tuberculous lesions. Chapter three reports the author's experience with attempts to determine the viability of tubercle bacilli seen in the various pulmonary lesions which occur in this disease. In chapter four is discussed the relationship between the type of tuberculous lesion and immunity. In chapter five the relationship between the type of lesion and the therapy of tuberculosis, particularly chemotherapy, is given detailed consideration.

The section on the therapy of tuberculosis is particularly well done. However, the brief section on the growth, nutrition, and physiology of the tubercle bacillus is out of date and the book also suffers from lack of an adequate bibliography.

The major thesis of the author is that heretofore the sequence of events which occur in pulmonary tissue infected with tubercle bacilli has been viewed from the histological standpoint without

giving due consideration to the influence of the number of tubercle bacilli present. According to Dr. Canetti only by noting both factors can a true picture of the pathogenesis of the disease be derived. Dr. Canetti attempts to correct this situation by furnishing data of his own on the number of tubercle bacilli encountered in the various tuberculous lesions. He then relates his findings to important aspects of the pathogenesis, immunology, and therapy of tuberculosis. Unfortunately, the amount of original data included in the book from the enumeration of tubercle bacilli in tuberculous lesions by direct microscopic count or by culture is meager, but the author's conclusions from these data generally are in agreement with those of other workers.

It is difficult to abstract significant conclusions and set them down for the benefit of potential readers since Dr. Canetti, in spite of his unique approach, still has found no solution to any of the major problems in the field. However, he discusses these problems well and hypothesizes brilliantly. The book becomes primarily a philosophical treatment of many of the problems which must be solved before a proper understanding of the pathogenesis, immunology, and therapy of tuberculosis can be obtained.

Actually, although this may not have been Dr. Canetti's intent, more than anything else the book re-impressed the reviewer with the limitations of purely histological methods, with or without the concomitant enumeration of tubercle bacilli within lesions, when used as tools for the solution of major problems in this field. Little more can be expected from these for, in the final analysis, the mechanisms involved can only be described in biochemical and/or physiological terms.

This book, however, contains a wealth of information which, taken together with the masterful analyses, and the stimulating discussions, make it required reading for every student of this complex disease.

GUY P. YOUMANN

**Microbiology** (Second Edition). Florence C. Kelly and K. Eileen Hite. New York: Appleton-Century-Crofts, Inc. 1955. xi + 615 pp., 185 figs., 22 tables. \$7.50.

The organization and style for the second edition of Kelly and Hite's *Microbiology* follow those of the first edition. The authors have not increased the length of the book and yet parts of the book have been revised. One desirable change is the shifting of references from the appendix to more readily accessible positions at the ends of chapters. The authors are to be commended for continuing their lucid and concise introduction to the microscopic world and for their discussion of bacterial inheritance and variation. The text, however, remains an introduction to medical bac-

teriology rather than a book of general bacteriology. General metabolism is given 8 pages, bacteria in nature and industry 7 pages but antimicrobial methods, including a chapter on surgical asepsis, receives 26 pages of discussion. The book is not well suited to a study of general bacteriology contrary to the statement which the authors make in the preface.

To this reviewer one of the most serious complaints refers to the treatment which the authors give to taxonomic terms. In the first edition generic names often were pluralized and capitalized, *vis.*, *Neisseria* and *Neisseriae*. This type of error appears to have been corrected in the second edition but the authors continue to pluralize genus names and then to use them as vulgate expressions. While words such as streptococci convey a morphological concept and as such are useful, the same can hardly be said for 'salmonellae'. The authors prefer to use common names in the place of genus names unless a species is being considered. As it is used 'salmonellae' refers to *Salmonella* and since by international agreement bacterial genus names are singular in number, 'salmonellae' seems undesirable even though it is intended as a common name. Avoidance of generic epithets by the authors may mean that they do not accept the names or it may result from a failure to realize that generic names are collective nouns essentially and may carry a plural meaning. In a few of the chapters species names are used as headings for subsections. In these instances adherence to the format results in 'Clostridium Perfringens' appearing in bold-face. Authors are privileged to use a nomenclature and style of their choice. It does seem better in introductory textbooks to avoid styles that confuse the beginning student unnecessarily. Especially this is true when agreement on the rules of bacterial nomenclature has been reached.

The book is free of errors for the most part. One error appears to have been made when, in the discussion of oxygen relationships (p. 131), the authors define the usual terms but present only microaerophilic in bold-face. In spite of criticism *Microbiology* is well written and should continue to be a popular textbook for the introduction of medical bacteriology to the general student.

O. B. WEEKS

**Methods in Enzymology**, Volume 1. Sidney Colowick and Nathan Kaplan, Editors. New York: Academic Press, Inc.; 1955. XXV plus 835 pp., \$18.00.

*Methods in Enzymology*, edited by Doctors Sidney Colowick and Nathan Kaplan, is a 4-volume comprehensive compilation of methods used in the study of enzymes. Two volumes, the first of which is now available, provide laboratory directions for the preparation and assay of enzymes. Volume 3

deals with the preparation and determination of substrates whereas volume 4 describes special techniques for the enzymologist. The rapid advances in the application of enzymes as tools for the solution of biological problems and the increased interest in the role of enzymes in all biological phenomena has made the handling of enzymes a common place laboratory operation in fields other than biochemistry, i.e., bacteriology. Hence, *Methods in Enzymology* has been published to aid in research in bordering sciences as well as in enzymology itself. Since similar references such as *Der Methoden der Fermentforschung* are long since out of date, these volumes provide a much needed source of procedures.

The contributions were solicited from among those enzymologists who had developed useful and reliable procedures and assays or who had sufficient personal experience with the enzyme concerned to provide authoritative experimental procedures. Each volume contains a comprehensive subject index and an author index, including authors of the articles cited in the bibliography (footnotes at the bottom of each page). In addition there is a cross-referencing system for among the 4 volumes.

Volume 1 of this series, containing 126 articles, is divided into 4 sections. The first section is a particularly valuable general discussion of procedures for (1) preparation of tissue slices and homogenates, (2) fractionation and preparation of cell components such as mitochondria and chloroplasts, (3) extraction of enzymes from animal tissues, microorganisms and plants, (4) protein fractionation with ammonium sulfate, organic solvents, adsorption and elution, partition and ion exchange chromatography and (5) removal of nucleic acids. The remaining 3 sections of volume 1 are concerned with the specific enzymes of carbohydrate metabolism, (2) lipid metabolism and (3) the citric acid cycle. Each article gives the principles, reagents, and procedure for enzyme assay, explicit directions for purification of the enzyme and its properties. For many enzymes, alternative procedures are furnished for purification from different sources, i.e., hexokinase from yeast, brain, muscle, and liver or for different coenzyme specificity, i.e., both TPN- and DPN-specific glucose-6-phosphate dehydrogenases.

Judging from the immediate and continued usefulness of volume 1 in the laboratory of the reviewer, the complete set promises to become standard equipment in every laboratory where enzymes are studied or used.

W. A. Wood

**Identification of Enterobacteriaceae.** P. R. Edwards and W. H. Ewing. Burgess Publishing Co., Minneapolis, Minn., 1955. 179 pages, price \$4.00.

To many bacteriologists, the identification of Enterobacteriaceae is a maze through which one stumbles and struggles, hoping eventually to come up with a correct answer before the nomenclature or criteria for diagnosis has been changed. Edwards and Ewing have straightened the paths and present a chart by means of which the bacteriologist can proceed in an orderly fashion.

The preface defines the family of Enterobacteriaceae and the genera and groups included in it. The intergroup relationships among typical strains is explained. The necessity of certain minimum standards below which work in enteric bacteriology shall not fall is emphasized.

Chapter One outlines methods for the collection and handling of specimens, plating methods, isolation of enteric bacilli and the procedure for identification of strains.

Two chapters are allotted to the genus *Salmonella*. In one, there is a detailed and comprehensive coverage of the biochemistry and serology of the genus. Antigenic fractions and antigenic variations, as well as methods of preparing and standardizing antisera and antigens and methods of serological identification, are discussed and explained. Recognizing the fact that "the growing multiplicity of salmonella types and the numerous diagnostic sera required for the recognition of all of them make impractical the complete serological typing of salmonella in the average laboratory", the authors prepared a second chapter, giving methods for simplified salmonella diagnosis, which is more or less complete within itself. This enables the bacteriologist in the small laboratory to identify the more commonly occurring types and to recognize other strains which are salmonella and should be sent to a center for identification. Due doubtless to the position of the authors, the absolute necessity of the bacteriologist utilizing the facilities of typing centers for consultation and final identification of many strains is not sufficiently emphasized.

One chapter is devoted to each of the following: Arizona group, *Escherichia* Freudi group, the genus *Shigella*, *Alkalescens-Dispar* (A-D) group, *Escherichia coli* group, the Providence group and the *Klebsiella-Aerobacter* group. Each of the chapters follows a rather uniform pattern; covering definition of the group or genus, biochemical reactions, antigenic structure, preparation of antisera and the methods to be followed in serological typing. The section dealing with *Escherichia coli* serotypes associated with diarrheal disease is particularly well presented. Concise and accurate knowledge of this new facet of enteric bacteriology is most timely.

Bacteriophage typing of *S. typhi* is reviewed briefly. Methods used in typing and its application are explained adequately.

The book can be described in a very few words—

factual, orderly, complete and practical. It should prove a boon to students of bacteriology, a valuable reference to those in contact with enteric disease

diagnosis and a "must" for laboratories doing enteric bacteriology.

ELIZABETH J. COPE

## NEWS AND MEETINGS OF LOCAL BRANCHES

**The New York City Branch** has elected the following officers for 1955. President: John E. Blair; Vice President: Phillip C. Eisman; Councilor to the S.A.B.: Morris L. Rakieten. The President and Vice President were elected for a one year term, the Councilor to the S.A.B. for a two year term. The terms of office of Corresponding Secretary (C. Virginia Fisher) and Secretary-Treasurer (Ernest M. Weber) do not expire until 1957.

**Southern California Branch** (Eric L. Nelson, Secretary-Treasurer)

**June 24, 1955.** A joint meeting of the Branch with the Pacific Division of the American Association for the Advancement of Science and the Northern California-Hawaii Branch was held at the campus of California Institute of Technology at Pasadena. The program of scientific papers follows.

1. Organization of Enzymes in *Azotobacter vinelandii*. A. G. Marr and H. E. Cota-Robles, Department of Bacteriology, University of California, Davis.

2. Studies on the Physiology of *Streptococcus salivarius*. Thomas A. Niven, Milo D. Appleman and Harrison M. Kurtz, Department of Bacteriology, University of Southern California.

3. A growth Experiment with *Coccidioides immitis*. Daniel E. Johnson, New Mexico Department of Public Health, Albuquerque, N. M.

4. The Preservation of Bacterial Cultures with Glycerol. Dexter H. Howards, Medical Center, University of California, Los Angeles.

5. New Methods of Bacterial Nutrition on Membrane Filters. A. Goetz and N. Tsuneishi, Department of Physics, California Institute of Technology, Pasadena, Cal.

6. Studies on the Anaerobic Growth of *Bacillus anthracis*. Milton Puziss and Sidney C. Rittenberg, Department of Bacteriology, University of Southern California.

7. The Anatomy of T-2 Bacteriophage. Dean Fraser and Robley C. Williams, Virus Laboratory, University of California, Berkeley.

8. The Development *in vitro* of Cytoplasmic Particles from Mammalian Cells. Eric L. Nelson, Department of Infectious Diseases, Medical Center, University of California, Los Angeles.

9. The Use of Tableted Substrates in Diagnostic Bacteriology. M. J. Pickett and M. L. Scott, Department of Bacteriology, University of California, Los Angeles.

**South Florida Branch** (E. Jane Maiden, Secretary)

**June 23, 1955.** The Branch met at the University of Miami School of Medicine Auditorium in Coral Gables. The scientific program consisted of the following papers:

1. Recent Developments in the Diagnosis of Virus and Rickettsial Infections. Michael Siegal.
2. Study of Resistance to Virus Action in He La Tissue Culture. Ann R. Beasley.

**Indiana Branch** (Merwin Moskowitz, Secretary-Treasurer)

**April 1, 1955.** The Spring meeting of the Branch was held at the Indiana Public Health Building, Indianapolis. The officers elected for the year 1955 are: President: Dwain N. Walcher, Indiana University Medical Center; Vice President: James M. McGuire, Eli Lilly and Co.; Directors: Charles F. Hill, Indiana Board of Health; C. L. Baldwin, Pitman Moore Co. The guest speaker at the meeting was Nicholas E. Manos, U. S. Public Health Service, Washington, D. C., who spoke on "Histoplasmin Sensitivity and Tornadoes". Following Dr. Manos' talk those present were guests of Pitman Moore Co. and Eli Lilly and Co. at a buffet luncheon.

**Eastern New York Branch** (Sally M. Kelly, Secretary-Treasurer)

**October 18, 1955.** The fall meeting of the Branch was held at the Sterling-Winthrop Research Institute, Rensselaer. The following officers for the year 1955-56 were elected at the business meeting: Chairman, Dr. Scott V. Covert, Albany Medical College; Vice Chairman, Miss Mary Wheeler, Division of Laboratories and Research; Councilor-at-Large, Dr. Ernest Froelich, Sterling-Winthrop Research Institute; Councilor to the parent Society, Miss Sophia Cohen, Division of Laboratories and Research; Alternate Councilor to the parent Society, Dr. Henry Ehrlich, Rensselaer Polytechnic Institute, Troy. The scientific program consisted of the following papers:

1. Management of Institutional Amebiasis. Emery W. Dennis, Sterling-Winthrop Research Institute, Rensselaer.

2. Isolation of *Histoplasma capsulatum* from Two Natural Sources in the Mohawk Valley; One the Probable Source of Two Cases of Histoplasmosis. George N. Little, Verna Morduant and Elizabeth L. Hazen, Division of Laboratories and Research, Albany.

## NEW MEMBERS

### New Active Members

June 20, 1955 to September 30, 1955

Amell, Virginia H., 515 Grove St., East Lansing, Mich.  
 Bannister, J. Warren, Dept. of Medical Microbiology, Med. School Univ. of Wisconsin, 426 Charter St., Madison 6, Wisconsin  
 Bass, Joe A., Dept. of Bacteriology, University of Texas, Medical Branch, Galveston, Texas  
 Belmont, Philip F., 98th General Hospital, APO 34, % P.M., New York, N. Y.  
 Bevis, Marion L., C. D. C. Lab., Box 185, Chamblee, Ga.  
 Bonanno, Salvatore R., % E. R. Squibb Co., Div. of Olin-Mathieson, New Brunswick, N. J.  
 Brew, Roger H., 751 Wilcoxson Ave., Stratford, Conn.  
 Brooks, James W., 259 Burke Road, Lexington, Ky.  
 Brown, James A., Jr., Terminal Ave., Eden Park Gardens, New Castle, Delaware  
 Cohen, Sol, 1935 83rd St. Apt. D4, Brooklyn 14, N. Y.  
 Del Giudice, Joseph, 1818 Maryland St., Los Angeles 57, Calif.  
 Dmochowski, Leon, M. D. Anderson Hospital and Tumor Institute, 6712 Bertner Blvd., Houston 25, Texas  
 Donchak, Richard M., Knouse Foods Cooperative Inc., Peach Glen, Pa.  
 Engle, Claire S., 16 Fairfield Terrace, Short Hills, N. J.  
 Fahlberg, Willson J., Dept. of Microbiology, Baylor Univ. College of Medicine, Houston 25, Texas  
 Felton, Harriet M., M.D., University of Texas, Medical Branch, Dept. Pediatrics, Galveston, Texas  
 Foard, Thomas B., Bldg. 66, Vet. Admin. Hospital, McKinney, Texas  
 Foster, Henry L., The Charles River Breeding Labs., P. O. Box 338, Wilmington, Mass.  
 Fothergill, LeRoy D., Camp Detrick, Frederick, Md.  
 Friedman, Herman, 4948 N. 9th St., Philadelphia 41, Pa.  
 Garland, Alton C., % National Cranberry Assn., South Hanson, Mass.  
 Gonshorek, Mary F., 67-07 Yellowstone Blvd., Forest Hills, Long Island 75, New York  
 Griffith, William R., 817 Trail Ave., Frederick, Md.  
 Hardy, Paul H., Jr., Box 188, Glenarm Road, Glenarm, Md.  
 Huddleston, Robert L., Niemann Apt. A-1, Norman, Oklahoma  
 Johnson, Aliceanne V., 408 Baker St., Jamestown, New York

Johnson, George T., Dept. of Botany & Bact., Univ. of Arkansas, Fayetteville, Ark.  
 Jungk, Norman K., Research Labs., Inc., 734 S. Fourth St., St. Joseph, Missouri  
 Koehn, Delmer H., 501 East 5th Ave., Mitchell, S. D.  
 Kunkee, Ralph E., Chemical Dept., Experimental Station, E. I. duPont De Nemours Co., Wilmington, Delaware  
 Leadbetter, Edward R., Dept. of Bacteriology, Univ. of Texas, Austin, Texas  
 Lobstein, Otto E., Chem-Tech Laboratories, 236½ South Robertson Blvd., Beverly Hills, Calif.  
 Luzzio, Anthony J., Florida City Apts., Box 122, Florida City, Fla.  
 Mann, Fred J., 136 Liberty St., New York 6, N. Y.  
 Manson, Frank E., 1635 Hatfield Valley Road, Hatfield, Penna.  
 Masayasu, Nomura, % H. Shimizue, Ro-7, 10 Nishikata-machi, Bunkyo-ku, Tokyo, Japan  
 Mundkur, Balaji D., Rum Pilot Plant, Agricultural Experiment Station, University of Puerto Rico, Rio Piedras, Puerto Rico  
 Murphy, Donald M., Wisconsin Alumni Research Fdn., 506 N. Walnut St., Madison, Wisc.  
 Parrish, Henry M., 23 Central St., Ocala, Fla.  
 Rabinowitz, Jesse C., Section on Enzymes & Cellular Bioch., Bldg. 10, 9N-117 Nat'l. Inst. of Health, Bethesda, Md.  
 Reich, Claude V., Dept. of Veterinary Science, Penn. State University, University Park, Pa.  
 Reilly, John Peter, 113 Jastrum St., Providence 8, R. I.  
 Righthand, Vera F., 64 Standish Road, Stamford, Conn.  
 Robinson, Bettie, Duval Medical Center, Jacksonville, Fla.  
 Schraitle, Robert L., 2082 Morrison Ave., Lakewood 7, Ohio  
 Stojanovic, Borislav J., Dept. of Agronomy, Cornell University, Ithaca, N. Y.  
 Svarath, Helen E., 20020 Riopelle, Detroit 3, Mich.  
 Swartz, Morton N., McCollum-Pratt Institute, Johns Hopkins University, Baltimore 18, Md.  
 Tortorich, Joseph A., 604 West 2nd Ave., Pine Bluff, Ark.  
 Tzianabos, Theodore, 360 Beech St., Manchester, N. H.  
 Went, Johanna C., G. T. B. O. N. Kemperbergerweg 11, Arnheim, Netherlands  
 Wertalik, Frank H., 767 Golden Ave., Secaucus, N. J.

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